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32-20547: Recombinant Human Sclerostin(Discontinued)

Alternative Name : SOST, SOST1, CDD, VBCH, DAND6

Description

Source:CHO cells
Sclerostin, a glycoprotein predominantly secreted by osteocytes, is a member of the Cerberus/DAN family of putative BMP antagonists that functions as an endogenous regulator of the canonical Wnt signaling pathway and an inhibitory regulator of bone homeostasis. Although expressed nearly exclusively by osteocytes, sclerostin can also be found at significant levels elsewhere, such as bone, bone marrow, cartilage, the kidney, and the liver, and has also been shown to be produced by hypertrophic chondrocytes and cementocytes. Like DKK family members DKK-1 and DKK-4, sclerostin plays an important regulatory role in the Wnt/Beta -catenin signaling pathway by forming inhibitory complexes with LDL Receptor-related proteins 5 and 6 (LRP5 and LRP6), which are essential components of the Wnt/Beta -catenin signaling system. LRP5 and LRP6 are single-pass transmembrane proteins that appear to act as co-receptors for Wnt ligands involved in the Wnt/Beta -catenin signaling cascade. Sclerostin has also been shown to interact directly with LRP4 via its extracellular domain to facilitate inhibition of Wnt signaling, and can catabolically promote osteoclast activity by increasing osteocyte expression of RANKL. SclerostinÂ's critical involvement in the regulation of bone formation and resorption is emphasized by two bone dysplasia disorders, sclerosteosis and van Buchem disease (VBD), caused by rare autosomal recessive mutations that result in progressive bone overgrowth and hypermineralization due to markedly decreased sclerostin levels. TheÂ CHO cell-derived Recombinant Human Sclerostin is a 190-amino-acid-length glycoprotein with a calculated molecular weight of 21.5 kDa. As a result of glycosylation, Recombinant Human Sclerostin migrates with an apparent molecular mass of approximately 28-35 kDa by SDS-PAGE gel, under non-reducing conditions.

Product Info

Amount : 5 µg / 20 µg
Purification : Purity:>= 95% by SDS-PAGE gel and HPLC analyses.
Content : This recombinant protein is supplied in lyophilized form.
Amino Acid : QGWQAFKNDA TEIIPELGEY PEPPPELENN KTMNRAENGG RPPHHPFETK DVSEYSCREL HFTRYVTDGP CRSAKPVTEL VCSGQCGPAR LLPNAIGRGK WWRPSGPDFR CIPDRYRAQR VQLLCPGGEA PRARKVRLVA SCKCKRLTRF HNQSELKDFG TEAARPQKGR KPRPRARSAK ANQAELENAY

Application Note

Determined by its ability to downregulate alkaline phosphatase activity in differentiating MC3T3-E1 cells in the presence of 20ng/ml murine Wnt-3a.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.